

# PRODUCT INFORMATION



## Ginsenoside Rb<sub>2</sub>

Item No. 22265

**CAS Registry No.:** 11021-13-9  
**Formal Name:** (3β,12β)-20-[(6-O-α-L-arabinopyranosyl-β-D-glucopyranosyl)oxy]-12-hydroxydammar-24-en-3-yl 2-O-β-D-glucopyranosyl-β-D-glucopyranoside

**Synonyms:** Ginsenoside C, NSC 308878

**MF:** C<sub>53</sub>H<sub>90</sub>O<sub>22</sub>

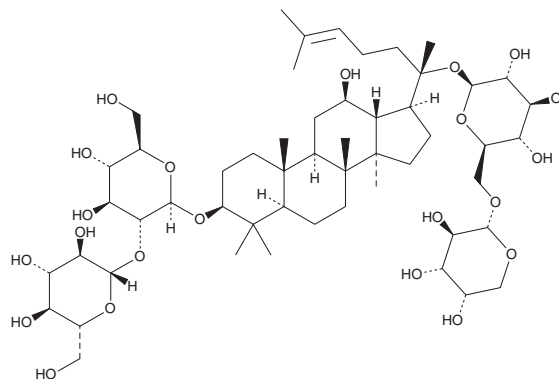
**FW:** 1,079.3

**Purity:** ≥95%

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Ginsenoside Rb<sub>2</sub> is supplied as a crystalline solid. A stock solution may be made by dissolving the ginsenoside Rb<sub>2</sub> in the solvent of choice. Ginsenoside Rb<sub>2</sub> is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of ginsenoside Rb<sub>2</sub> in these solvents is approximately 0.1, 10, and 15 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of ginsenoside Rb<sub>2</sub> can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of ginsenoside Rb<sub>2</sub> in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Ginsenoside Rb<sub>2</sub> is a steroid glycoside found in plants of the genus *Panax* that has diverse biological activities.<sup>1</sup> It inhibits LPS-stimulated increases in vascular cell adhesion molecule 1 (VCAM-1) and intercellular adhesion molecule 1 (ICAM-1) expression *in vitro*. It dose-dependently reverses LPS-induced decreases in the expression of IκBα in human umbilical vein endothelial cells (HUVECs).<sup>2</sup> Ginsenoside Rb<sub>2</sub> reduces adhesion of THP-1 cells to LPS-stimulated HUVEC cells, also in a dose-dependent manner. Ginsenoside Rb<sub>2</sub> reduces UVB-induced cytotoxicity and apoptotic nuclear fragmentation in HaCaT cells.<sup>3</sup> It also lowers total cholesterol and triacylglycerol in 3T3-L1 adipocytes cultured under high fatty acid conditions to levels comparable to lovastatin (Item No. 10010338).<sup>4</sup>

### References

1. Liang, Y. and Zhao, S. *Plant Biol.(Stuttg)* **10(4)**, 415-421 (2008).
2. Cho, Y.S., Kim, C.H., Ha, T.S., *et al. Korean J.Physiol.Pharmacol.* **17(2)**, 133-137 (2013).
3. Ha, S.E., Shin, D.H., Kim, H.D., *et al. Naunyn Schmiedeberg's Arch. Pharmacol.* **382(1)**, 89-101 (2010).
4. Kim, E.J., Lee, H.I., Chung, K.J., *et al. BMB Rep.* **42(4)**, 194-199 (2009).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/08/2025

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM